REFERENCES

ACKERY, P. & VANE-WRIGHT, R. (1984): Milkweed Butterflies. British Museum (Nat. Hist.), London.

Darvas, B., Varjas, L. & Kulksar, P. (1986): The developmental effect and mechanism of action of precocenes. *Novenyvedelem* (Budapest) 22(9): 390-397; C. A. 105: 220821 v.

FAGOONI, I. & UMRIT, G. (1981): Antogonado-

tropic hormones from the Goatweed, Ageratum conyzoides. Insect Sci. Its Appl. 1(4): 373-4; C. A. 95: 147186k.

LARSEN, T. B. (1986): Ageratum conyzoides (Compositae), Indirectly confirmed as source for pyrrolizidine alkaloids. J. Bombay nat. Hist. Soc. 83 (2): 458-9.

43. NOTES ON THE DISTRIBUTION OF RARE AND LITTLE KNOWN *TANACETUM NUBIGENUM* WALL. EX DC. (ASTERACEAE) FROM NORTHWEST HIMALAYA

(With a text-figure)

During germplasm exploration and collection trip to Garbyang (en route Mansarovar Kailash), district Pithoragarh, in October, 1986 we collected a rare and interesting medicinal and aromatic plant from the interior grassy localities, stone slopes, and sandy soils in the rather arid areas of Garbyang, predominantly a tribal area (63 km away from Tawaghat, last bus terminus), surrounded by mountains, gorges, and valleys with alpine vegetation. The species was identified as Tanacetum nubigenum Wall. ex DC. (Asteraceae).

This plant has been reported from Pindari Glacier, Kuti Valley, Byans valley (Almora and Pithoragarh districts); Tungnath, Vashudhara, Tapovan, Chamba, Gangotri (Chamoli, Uttarkashi and Tehri districts); Shetiker-Spiti, Thali Bazar (Himachal Pradesh) areas. The presence of this species in Garbyang area hence forms a new distributional record for North-West Himalaya. Seeds have been collected and the plant specimen has been preserved by the authors at N.B.P.G.R., Regional Station-Bhowali Herbarium (N.B.P.G.R.H. - 130).

Tanacetum nubigenum Wall. ex DC. Prodr.

4: 130, 1836; Hook. f. FBI 3: 378-379, 1881; Atkinson, 508-509, 1882; Collett, 265, 1902; Duthie, 92, 1906. (Fig. 1).

Erect, woolly, aromatic, 30-45 cm tall, perennial herb. Stems many, arising from a woody base, often branched and rooting at the base. Leaves sessile, alternate, 3-pinnatisect, 1.2-4.0 × 0.1-0.3 cm; segments linear-lanceolate, subacute, entire, glabrous or appressed, hairy on both surfaces. Heads discoid, many-peduncled or sessile, 3-5 mm in diameter, in terminal corymbs. Involucral bracts broadly oblong, many erect, woolly haired, margins scarious, purple-brown, outermost linear. Corolla or disk-florets 2-5 mm long, 5-ribbed, bright yellow. Achenes smooth, ovoid-oblong. Receptacle slightly convex; pappus none.

Flowering and Fruiting: July-October.

Reference No.: National Bureau of Plant Genetic Resources, Bhowali Herbarium (N.B.P.G.R.H. - 130 — K.S.N. & K.C.P.).

Note: Easily distinguishable from other species of *Tanacetum*, having taller stems 30-45 cm, smaller flower heads, 3-5 mm in diameter, and leaves tripinnatisect, linear,

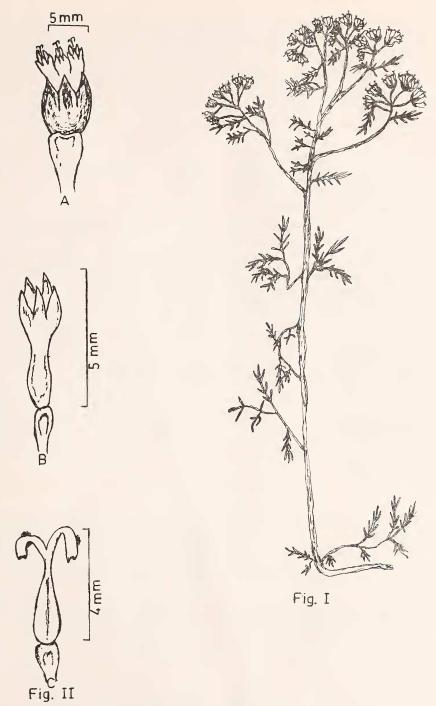


Fig. 1. Tanacetum nubigenum Wall, ex DC.

I: Flowering spikes with leaves.

II: A. Floral Heads (Involucral bracts, Disk florets and reproductive organs).

B. Disk-florets. C. Reproductive (Ovary, Stigma and Style).

acute lobes. A silvery-grey tufted plant with usually many stems arising from the root-stocks.

Earlier records: This species was first reported in 1883 and sporadic reports of its occurrence were available since then. It is being reported from the Garbyang region for the first time.

Distribution: Kuti Valley-Kumaon, 11200' 11.9.1884-J. F. Duthie, DD-3057; Phula Valley, Nila Valley-Tehri Garhwal, 15.8.1883-J. F. Duthie, DD-840; Byans Valley-Kumaon, 11200', 17.7.1886-J. F. Duthie, DD-6593; Thali Bazar-Himachal Pradesh, 9000', 8.10. 1877-DD-566213; Pindari Glacier-Kumaon, 11200', 17.7.1885-C. E. Paskiem, DD-5980; Chamba-Ilas-Tehri Garhwal, 11000', 17.9.1896-G. A. Gamble, DD-18629; Vashudhara-Chamoli Garhwal, 3500 m, 10.10, 1959-M. A. Rao, BSD-10546; Pindari-Moraine-Kumaon, 20.9. 1957-T. A. Rao, BSD-4432; Tapovan-Uttarkashi, 23.8.1967-B. D. Naithani, BSD-37419;

National Bureau of Plant Genetic Resources, Regional Station-Bhowali, Niglat - 263 132, District Nainital, (U.P.), April 24, 1987. Chamoli Garhwal, 1.9.1975-B. D. Naithani, BSD-37370; Shetiker-Spiti-Himachal Pradesh, 10.9.1961-N. C. Nair, BSD-16831.

Habitat: Rare, in alpine meadows on stony slopes, sandy soil and arid areas, associated with Allium stracheyi, Arnebia benthamii, Calamagrostis emodensis, Deyeuxia pulchella, 3800 m altitude.

Uses: This species and its allied species are used as an incense under the name 'Guggul' or 'Dhoop'.

ACK NOWLEDGEMENTS

We thank the authorities of Northern Circle, BSI and Taxonomy Branch, FRI, Dehradun for herbarium consultation and Mrs. Malhotra for help in identification of the plant. We are grateful to the Director Dr R. S. Paroda and Dr R. K. Arora, Head & Sr. Scientist, N.B.P.G.R., Pusa, New Delhi for encouragement.

K. S. NEGI K. C. PANT K. C. MUNEEM

REFERENCES

ATKINSON, E. T. (1882): Flora of the Himalayas. New Delhi. pp. 508-509.

COLLETT, H. (1902): Flora Simlensis, London. 265 pp.

DUTHIE, J. F. (1906): Catalogue of Plants of

Kumaon and of the adjacent portions of Garhwal and Tibet 1918. (Reprinted by Bishen Singh and Mahendra Pal Singh, 1974), Dehradun, 92 pp.

HOOKER, J. D. (1881): Flora of British India. Vol. 3, London. 378-379 pp.

44. ON THE OCCURRENCE OF HOLCOLEMMA CANALICULATUM (NEES EX STEUD.) STAPF ET HUBBARD, A RARE GRASS TO SOUTH INDIA, AT POINT CALIMERE WILDLIFE SANCTUARY, TAMIL NADU

A study on the flora of Point Calimere Wildlife Sanctuary during 1982 resulted in the finding of a rare and interesting grass *Holco-*

lemma canaliculatum Stapf et Hubbard. The same grass had been rediscovered after a lapse of several decades from Ramanathapuram